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The Pension Papers

A New Option for Retirement Savings:

Tax-Prepaid Savings Plans

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In this issue...

Workers at all earnings levels and the Canadian economy would both benefit from a new tax provision for savings.

The Study in Brief

Canada's tax treatment of retirement saving needs to be improved. For many low- and moderate-income workers, saving in Registered Retirement Savings Plans (RRSPs) makes little sense, as their tax rates and benefit clawbacks in retirement will be higher than those they face while working. At the same time, higher-income workers are limited in the amount they can save in tax-recognized plans, leading to overtaxation of the income they set aside for use in retirement. These factors mean that Canadians are saving less than they should, and in economically distorted forms, which raises the risks for public finances in meeting the income support needs of the coming boom in retirees.

An important part of a fix includes a new tool for retirement saving: tax pre-paid savings plans (TPSPs). Workers could contribute to TPSPs out of their after-tax income with no tax deductions. Growing savings in TPSPs would accumulate no further income tax liability, and retirees' future withdrawals would not be taxable or subject to benefit clawbacks. TPSPs would be a mirror image of RRSPs, and the contribution room for tax-prepaid and tax-deferred savings plans would be fully integrated. The fact that TPSP withdrawals would not be taxed should appeal to lower-income workers who face high effective tax rates retirement. Providing a new savings vehicle with additional contribution room would appeal to higher-income workers constrained by the current limits on RRSP and pension contributions.

Governments should find TPSPs fiscally appealing since they would bring no up-front revenue cost. New saving would be done out of after-tax income. Moreover, this approach might overcome Ottawa's past reluctance to raise RRSP and pension plan contribution limits, which has arisen from the common portrayal of the promised hikes as tax cuts for the rich. The TPSP scheme could not readily be portrayed in this manner. TPSPs would more equitably apportion the fiscal burden of supporting future retirees between those who have saved while working and those who have not. TPSPs would also restore incentives for efficient saving by many workers at low and moderate earnings levels. Improved savings schemes would help Canadians better prepare themselves for retirement, while providing the funds to spur investment in jobs and economic growth.

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In Canada as in other countries, demographic change poses challenges to the economic future. By the beginning of the next decade, the proportion of working-age Canadians will be declining dramatically while the proportion of retirees soars. As older workers retire, those with low savings will rely on public programs to maintain basic living standards. Among workers having the same lifetime labor earnings, those who save for their retirement will be footing the bill to support others who do not.

Compounding the coming demographic situation, the savings rates of Canadian households have fallen sharply. These low rates result at least partly from existing tax policies, with their heavy reliance on income-based taxes, and from public retirement benefit programs with steep income tests that penalize savings. Moreover, the design of the existing provisions for tax-deferred savings — Registered Pension Plans (RPPs) and Registered Retirement Savings Plans (RRSPs)[1] — fails to promote efficient savings at either low or high incomes. Depressed and distorted savings and a government revenue stream overly reliant on income taxes have dampened economic growth in Canada, constraining public finances.

These pressures call for an effective response, which is addressed in this *Commentary* through a tax policy innovation. We propose a new savings vehicle *in addition* to the existing tax-deferred plans. This vehicle would allow workers to save part of their after-tax earnings without any immediate tax deduction but also without taxation of the later returns or withdrawals used to finance retirement. Because these withdrawals would be taken out of savings that had already borne tax, taxes on them would, in effect, have been prepaid. Thus, the scheme is called a *tax-prepaid savings plan* (TPSP).[2]

Such a regime would encourage saving and improve tax fairness for savers. Personal savings rates are now historically low in Canada, and low- and moderate-income Canadians have weak or even negative incentives to save for retirement.[3] Because of the income testing of public retirement benefits, many of today's workers will face marginal effective tax rates (METRs) — the sum of applicable tax rates plus all benefit reductions and clawbacks — that are higher in retirement than when they were working. For these workers, the provision of tax-prepaid plans could make saving more financially rewarding by allowing a greater degree of lifetime income averaging.

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1 Throughout this study, references to RPPs and RRSPs and existing Canadian tax-deferred savings plans should be understood to include deferred profit-sharing plans (DPSPs). These employer-based plans have their own contribution limit ($6,750) but fall within the overall limits for contributions to all forms of tax-deferred savings. Details on the Canadian tax provisions in this study are taken from Hogg and Mallin (1999).

2 The US Treasury Department (United States 1977, 123) first used the term "tax prepayment" to describe this method. As discussed later in the paper, tax-prepaid savings options have been available in the United States since 1998 and in the United Kingdom since the 1980s.

3 See Shillington (1999); Daly (1981) noted this problem earlier. Savings incentives for many low- to moderate-income and older taxpayers are undermined by several features of the tax system and retirement-income programs, including income tests in the Guaranteed Income Supplement (GIS), tax clawbacks on Old Age Security (OAS), means tests in provincial income top-ups for the elderly, the phaseout of the federal age credit amount, and the taxability of RRSP withdrawals and payments from registered retirement income funds (RRIFs) and annuities.

For higher-income Canadians, the incentive to save via RPPs and RRSPs is clear, as the deferral of tax on both the principal amount saved and the investment returns will not be offset by a higher METR during retirement. Still, higher-income earners find their access to these schemes constrained by the contribution ceiling of $13,500 per year, which becomes binding at an annual income of $75,000.[4] As a result, these high earners do not have the same relative access to tax-recognized savings as those with more moderate incomes. Tax-prepaid plans would be an attractive vehicle for improving access.

The argument for TPSPs is particularly compelling for Canada because its current tax policies may be reducing the economy's supply of savings to finance capital investment, a key input to productivity growth.

The argument for TPSPs is particularly compelling for Canada because its current tax policies may be reducing the economy's supply of savings to finance capital investment, a key input to productivity growth. Taxes on income bear heavily on savings, favoring current consumption over investment. Even if savings were unaffected by the tax burden, an income-based tax system hinders the economy's efficiency and long-run growth. These outcomes will make the demands of the growing elderly population all the more difficult for governments to finance. As Venti and Wise state, "[I]f wealth accumulation results from conscious decisions to save versus spend, penalizing savers may have substantial incentive effects, discouraging individuals from saving for their own retirement and limiting aggregate economic growth" (2000, 3).

Introducing TPSPs alongside current savings vehicles would shift the Canadian tax system more toward a consumption base, which would improve the economy's efficiency and promote growth. And by reducing the current tax penalty on savers, TPSPs would put their lifetime tax burden more in line with the burden on nonsavers.

Canadian governments have already announced plans to cut personal income tax rates, and TPSPs would help focus those cuts in an economically beneficial way. Leaning to more consumption-oriented tax policies would improve long-run growth and expand the fiscal choices available in future budgets. Introducing TPSPs would assist low-, middle-, and high-income earners in saving for retirement. And since TPSPs would entail little or no immediate revenue cost, using them to expand savings options might be especially attractive to government.

Because our argument is partly rooted in the superiority of consumption-based taxes to income-based taxes, this *Commentary* begins with a review of the economic properties of the two bases. We next compare the properties of TPSPs and RPP- and RRSP-type plans, evaluate their suitability for different taxpayers, and consider TPSPs' potential role in shifting Canada's personal taxes further toward a consumption base. We then assess the major TPSP design issues and how they relate to Canada's tax policy choices.

Taxing Income versus Taxing Consumption

A direct personal tax system can be designed with an income base, a consumption base, or a hybrid thereof.[5] This section describes two methods of implementing a consumption-based direct personal tax: tax-deferred and tax-prepaid savings plans. It then compares the income and consumption tax bases using the criteria of horizontal and vertical equity, economic efficiency and growth, and operational simplicity.

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4 Despite repeated official commitments to raise the ceiling, Ottawa has for many years delayed implementing the changes.

5 For a nontechnical review of the relative merits of these tax bases, see Boadway and Kitchen (1999, 96–101). Indirect taxes, such as the GST and provincial sales taxes, use a consumption base, but, unlike direct taxes, they cannot easily be tuned to reflect taxpayers' differing needs or ability to pay.

One can think about an individual's or an economy's total income in two ways: as the sum of the uses of that income or as the sum of its sources. The uses of income are conceptually divided between consumption and saving in each period, and the two together equal total income.[6] The portion of income not consumed in a given period is, by definition, saved. Individuals who consume more than they save in a period are *dissaving* — that is, they are either borrowing or running down previous savings.

Leaving aside inheritances, gifts, and bequests, total savings over an individual's lifetime must average to zero, after accounting for interest on saving and borrowing. The timing difference between saving and borrowing is critical to the difference between an income base and a consumption base. People who neither save nor borrow encounter no difference between taxes based on income and on consumption; the two amounts are identical in every period. For people who do save or borrow, a consumption-based tax can be implemented by deducting savings[7] from income and adding dissaving. The effect of tax-deferred savings plans is to transform the tax base from income to consumption.

The second way to view income hinges on its sources. The key distinction is between labor and capital income (with the latter including financial, property, and business sources). Individuals' capital income derives from their lifetime savings of labor income. Thus, another way to implement a personal tax on consumption is to use only labor income as the base. Taxing labor earnings but exempting capital income is the method used by TPSPs.

Popular jargon describes tax provisions for saving as tax "incentives" or "preferences." Yet properly designed tax-recognized savings plans merely implement a consumption-based tax system.[8] A tax-deferred or tax-prepaid savings plan ensures that future consumption is taxed just once, the same as current consumption (see Box 1). An income-based personal tax, in contrast, is shown to impose a double tax on future consumption or the savings used to finance it.

A tax-deferred or tax-prepaid savings plan ensures that future consumption is taxed just once, the same as current consumption.

What factors might support the choice of a consumption-based personal tax — or one closer to a consumption base than the current system — rather than an income-based one?[9] The criteria conventionally used to assess taxation are equity (horizontal and vertical), economic efficiency and growth, and practical simplicity. Changes that would improve saving incentives have implications for equity as well as efficiency and growth and would also affect the self-sufficiency of future retirees.

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6 This simplified exposition ignores both taxes, which are a third use of income, and transfers, which are a source.

7 This deduction may be limited, as with RRSPs; to the extent that limits are binding on taxpayers, the tax base falls short of a pure consumption base.

8 An income-based system might equally well be described as imposing a tax disincentive or tax penalty for saving. The common characterization of existing RPP- and RRSP-type plans as *tax expenditures* thus reflects the use of an income base as the reference point. If consumption were instead the normative tax base, provisions to protect savings from double taxation would be deemed essential parts of the system, rather than departures, and RPPs and RRSPs would not be considered tax expenditures — now computed as among the largest of tax expenditures provided in the Canadian personal income tax (Canada 2000).

9 A landmark study favoring the consumption-based direct tax was produced in Britain by a committee chaired by James Meade (Institute for Fiscal Studies 1978). For Canadian studies reaching similar conclusions, see Economic Council of Canada (1987); Davies and St-Hilaire (1987); Boadway, Bruce, and Mintz (1987); and Mintz and Wilson (1996).

Box 1: *Alternative Approaches to Taxing Savings*

A tax system can treat savings in a variety of ways. A useful schema is to consider how savings are taxed at each of three sequential stages: the point of contribution (that is, have the labor earnings used to make the contribution been taxed?); the stage of capital accumulation, while investment earnings accrue; and the point of withdrawal of the funds. At each stage, the savings may be tax-exempt, taxed, or partially taxed.

The most commonly used combinations of these choices are shown in the accompanying table. An income tax applies to both the initial savings (and the part of labor earnings that is spent) and the annual investment income from those savings, but it exempts the future withdrawal and spending of the savings. The tax treatment of this sequence of events is called a T/T/E approach (for taxed/taxed/exempt). A consumption base using tax-deferred savings plans exempts both the initial amount saved and the accruing returns, but it later taxes the full amount withdrawn for consumption (hence E/E/T). A consumption base using tax-prepaid savings plans fully taxes the initial savings (along with the rest of labor earnings) but then exempts investment returns as well as future withdrawals (hence T/E/E). Only the income tax applies two separate taxes to the stream, which explains why it is often said that an income tax doubly taxes savings.

Only consumption-based taxation imposes neutral and economically efficient incentives for saving. Other combinations of tax treatment at the three stages can yield inefficient incentives for either undersaving or oversaving. For example, the combination of the Registered Educational Savings Plan (RESP) and the companion Canada Education Savings Grants (discussed later in the text) may be not only tax neutral but pro-savings. The Registered Home Ownership Savings Plan (RHOSP), disbanded in 1985, allowed both tax deductions for contributions and tax-exempt withdrawals, which together constituted a subsidy for oversaving.

	Tax Treatment on		
Type of Tax Treatment	**Contribution**	**Accumulation**	**Withdrawal**
Income base	taxed	taxed	exempt
Consumption base			
Tax-deferred plans (RPPs/RRSPs)	exempt	exempt	taxed
Tax-prepaid plans (TPSPs)	taxed	exempt	exempt
Nominal receipts base (RESPs)	taxed	exempt	partly taxed*
Subsidized savings (RHOSPs, 1974–85)	exempt	exempt	exempt

* Tax applies to withdrawal of the accumulated investment returns but not the principal. The classification here ignores the Canada Education Savings Grant for contributions (see the discussion later in the text).

Horizontal Equity

Horizontal equity is shorthand for the extent to which individuals with similar resources and ability to pay taxes bear the same taxes. Consider two workers who hold identical jobs in the same firm throughout their lives, earning equal salaries in each year. They do not differ in age, health, family status, inherited wealth, skills, or motivation; as a result, the two are fully equal in their lifetime *opportunities* to consume. But they differ in one important way. Spender spends all of every paycheque by the next payday, whereas Saver saves a part of each paycheque for retirement. Spender accumulates no savings, never receives any capital income, and enters retirement with no assets. In

contrast, Saver earns capital income that grows over time and enters retirement with substantial assets.

If one sees the two individuals' identical lifetime labor earnings (and opportunities to consume) as making them similar in ability to pay, then the pursuit of horizontal equity requires that they bear the same total tax burdens over their lives. On this view, horizontal equity is satisfied by a consumption-based tax. The base can be actual consumption or labor earnings alone in each year. Since the two workers receive the same salary, the method of tax-prepaid savings clearly achieves equal tax burdens. If the consumption tax is implemented via a tax-deferred savings plan, Saver pays less tax than Spender during their working years, but, because of investment income, pays more taxes during retirement.[10]

If one believes that individuals' tax-paying ability should be judged annually, an income-based tax may seem more equitable. Saver has greater ability to pay each year owing to his receipt of growing sums of capital income in addition to labor earnings. What this view ignores is that Saver enjoys the additional consumption later in life than does Spender. A consumption-based tax leaves Spender's and Saver's *lifetime* consumption equal (on a discounted basis), while an income-based tax reduces Saver's lifetime consumption below Spender's.

Income-tested public programs further tilt the lifetime advantage in favor of Spender. These programs allow him to enjoy extra consumption during retirement and possibly even greater lifetime total consumption than Saver. Financing these transfers through taxes paid disproportionately by savers, both working and retired, exacerbates these outcomes. These programs do not simply transfer resources from working-age to retired individuals; they transfer resources from working-age *and* retired savers to retired spenders.

The relative stability over time of individuals' incomes affects the horizontal equity of different tax bases. If two individuals have the same average income over a period longer than a year, their exact annual patterns should not matter. Over the longer period, they have the same tax-paying ability and should bear the same total taxes. However, a progressive tax rate schedule applied on an annual basis, without provision for averaging, penalizes those with fluctuating incomes relative to others with a more stable pattern. This outcome is inequitable and discourages individuals from choosing occupations or activities with variable incomes, such as entrepreneurship and self-employment. As we show later, a properly implemented consumption tax base can provide more equitable treatment of people with variable versus stable income patterns.

A properly implemented consumption tax base can provide more equitable treatment of people with variable versus stable income patterns.

Vertical Equity

Vertical equity reflects the notion that individuals with more tax-paying ability should pay more tax than others with less. The concept is uncontroversial as a generalization. But judgments on the appropriate distribution of the tax burden depend on values and

10 Additional consumption simply reflects the return on savings; society has the benefit of those resources for the intervening years via more productive capital, boosting output, jobs, and wages. These and other results in the text assume that the tax rate schedule is proportional and constant over time (or progressive with averaging over a lifetime) and that investments yield average rates of return equal to the rate used for discounting future taxes and future consumption. A later section clarifies the role of these assumptions.

ethics, leading to diverse views on the ideal *degree* of tax progressivity. As a taxpayer's ability to pay increases, whether evaluated on an income or a consumption basis, graduated tax rates result in tax liability that rises in percentage terms faster than income. This shift distorts resource allocation and lowers economic efficiency, forcing a tradeoff between the vertical equity and the efficiency/growth criteria. No such conflict arises between horizontal equity and economic performance.

Proposals to reduce the tax burden on savers relative to spenders are often mistaken as attempts to reduce the burden on those at high incomes relative to those at low incomes.

Confusion between the vertical and horizontal dimensions of equity often bedevils discussion of the tax treatment of saving. Proposals to reduce the tax burden on savers relative to spenders are often mistaken as attempts to reduce the burden on those at high incomes relative to those at low incomes. For example, opponents of higher RRSP contribution limits decry the reduced progressivity of the tax burden and undue benefits for the "rich," when such a change would actually be aimed at equalizing the lifetime tax burdens of people who have similar earnings but make different choices about saving.

Another frequent presumption is that high savers have high incomes and those who save little or nothing are mostly at lower incomes; by implication, measures to lighten the effective tax on savers are regressive. Unfortunately, that perception relies on annual data that obscure the underlying dynamics. A lifetime view of individuals' relative resources provides a very different picture of tax incidence (Davies, St-Hilaire, and Whalley 1984).

Those at low incomes in any particular year include many who are at that level temporarily, being unemployed or early in their working careers. Their lifetime income is higher than an annual figure indicates, and they dissave in adverse years to maintain their consumption. Similarly, high-income earners in any given year include many who are temporarily at the peak of their earnings cycle or enjoying transitory receipts (such as overtime wages or capital gains on the sale of a family business). They too try to smooth their lifetime consumption by dissaving in poorer years, but annual cross-sectional data show high average savings rates for individuals with high incomes, dramatically overstating their lifetime savings rates.

Emphasizing individuals' annual rather than lifetime incomes yields incorrect inferences about the distributional impacts of consumption taxes. Distributional concerns are appropriately addressed by the choice of the tax rate structure and do not support the choice of a suboptimal tax base. Moreover, the long-run growth effects of a more consumption-oriented tax base can raise the earnings of less-educated workers relative to those of more-educated workers, thus reducing inequality (Beaudry and Green 1998). Greater tax recognition of savings would ultimately promote equality across workers.

In sum, TPSPs would improve access to tax-recognized savings for individuals at *both* low and high incomes by reducing the tax burden of savers relative to that of spenders. Adopting our proposal would enhance savings incentives and lifetime horizontal equity for people at all lifetime earnings levels; incidental effects on overall tax progressivity could be offset in the tax rate schedule. Thus, advocates of a more progressive tax system should forthrightly support more steeply graduated rates, rather than oppose changes to the tax base that would improve horizontal equity, economic efficiency, and growth.

Economic Efficiency and Growth

Taxes distort the relative prices of goods and activities, reducing the economy's efficiency and long-run growth.

Taxes distort the relative prices of goods and activities, reducing the economy's efficiency and long-run growth. Distortions arise through many channels, including the level and composition of savings and individuals' choices about consumption, work, education, and training. For a given level of taxes, the choice of the tax base influences efficiency costs.

A key condition for the intertemporal efficiency of resource allocation is that the individual saver be able to convert present into future consumption on the same terms that the real economy can convert current into future output. If today's forgone consumption can be converted to future consumption only at a rate lower than the economy's ability to transform resources across time, the result is an inefficient bias toward undersaving. The individual and society would be better off if less current output were consumed and more devoted to investment. For this reason, a shift toward better tax treatment of savings (or avoiding savings disincentives) would promote economic growth.

More formally, an individual's intertemporal trade ratio (ITR) — the terms on which the individual can trade future consumption against current consumption — should equal 1 plus the real rate of return to capital (1 + RR). For example, if the annual rate of return is 10 percent, the economy's ability to convert forgone current consumption (savings) to future consumption is 1.10 (1 plus 10 percent). Only if the saver can obtain 1.10 units of real consumption next year for each unit given up today will savings be efficient. This condition is satisfied by a consumption-based tax but violated by an income-based tax, since the latter pushes the ITR below (1 + RR).[11]

Taxes distort choices not only in the capital market but also in the labor market. A consumption-based tax may have greater distortions there than an income-based tax because it applies to a smaller total base and therefore needs a higher rate.[12] To assess the overall efficiency costs of taxes, economists construct models calibrated to the actual economy and use them to estimate the additional real economic loss per incremental dollar of tax revenue — or the marginal efficiency cost (MEC) of a tax.[13] An efficient tax would have an MEC of zero; total tax revenue would exactly equal the resources given up by the private sector, making the transfer of resources loss free. But most real-world taxes cost the economy more in resources than the revenues governments collect, so MECs are typically positive.

The two tax bases with the lowest efficiency costs are a sales-type consumption tax followed closely by a tax on labor income, as shown in Table 1.[14] These two bases correspond to a direct consumption tax with tax-deferred savings plans and one with TFSPs. Notice that other tax bases have considerably higher costs, rising sharply when capital income is included, particularly if it is taxed at the individual level. These findings herald efficiency gains to be had from shifting the personal tax base further

11 It is also possible for tax provisions to provide an incentive for inefficiently excessive savings, as when the ITR exceeds (1 + RR)

12 The consumption tax base has been found superior to the income tax base with respect to human capital choices (see Davies and Whalley 1991; Heckman, Lochner, and Taber 1998).

13 For further explanation with a diagram, see Kesselman (1997, 39–41).

14 Many other studies, using a variety of economic models, reach similar rankings of the various tax bases in terms of their efficiency costs. (See the review in ibid., 42–49.)

Table 1: ***Marginal Efficiency Costs of Alternative Tax Bases***

Tax Base	MEC per $1 of tax
Consumption (sales value)	0.262
Labor income	0.376
All taxes together	0.391
Capital income at corporate level	0.448
Corporate plus individual income	0.497
Individual income (capital plus labor)	0.520
All capital income	0.675
Capital income at individual level	1.017

Source: Jorgensen and Yun 1991, 503–504.

toward consumption, with the potential gains from tax-deferred plans somewhat exceeding those of tax-prepaid plans.[15]

Empirical analysts use cross-country and time-series data to examine the relationship between taxation and economic growth. While some studies find that the overall level of taxes does not exert a statistically robust impact on economic growth (Levine and Renelt 1992; Easterly and Rebelo 1993), others provide empirical evidence that the *mix* of taxes matters.[16] Looking at growth across member countries of the Organisation for Economic Co-operation and Development (OECD), Kneller, Bleaney, and Gemmell (1999) distinguish between distortionary taxes (such as personal and corporate income taxes) and nondistortionary taxes (consumption taxes), and find that income taxes reduce economic growth significantly, whereas consumption taxes have no impact.[17]

The theoretical and empirical literature on the effects of taxes on savings is voluminous (see Bernheim forthcoming). Findings vary about whether reducing the tax rate on savings actually raises the savings rate.[18] Analysts disagree, for example, about whether the provision of tax-deferred savings plans in the United States has raised personal savings or merely caused individuals to transfer pre-existing wealth to the plans. Empirical studies based on differences in tax-recognized savings plans in Canada and the United States also find both support for (Carroll and Summers 1987) and dismissal of (Burbidge, Fretz, and Veall 1998; Sabelhaus 1997) tax effects on savings.[19]

If shifting the tax system toward a consumption base does raise total personal savings, what is the effect on domestic investment? Theoretically, if total tax revenue holds constant, increased personal savings should raise domestic savings. But for economies highly open to financial flows, added savings could purchase foreign assets, with no additional investment in the domestic economy. Yet empirical studies tell us

15 The lower MEC of the tax-deferred method of implementing a consumption tax derives from its *ex post* imposition of additional taxes on the dissavings of the elderly cohort at the time of the change (which is undesirable on equity grounds). These lump-sum revenues allow for a lower rate of tax on the current cohort of workers and therefore reduce distortion of the labor market.

16 For results and studies supporting this view, see Engen and Skinner (1996). This finding is consistent with the theoretical and model-based quantitative studies of taxation, discussed above.

17 The study's estimates imply that cutting income taxes by 5 percent of gross domestic product (GDP), even if offset by increasing consumption taxes, would raise economic growth by 0.5 to 1 percent per year.

18 For a group of studies that shows the contrast in findings, see Engen, Gale, and Scholz (1996); Hubbard and Skinner (1996); and Poterba, Venti, and Wise (1996).

19 The absence of clear-cut findings may follow from the lack of good natural experiments that would uncover a true relationship, given macroeconomic noise and household differences in savings choices. Engelhardt (1996) eliminates these factors by examining the savings impact of the cancellation of the RHOSP in 1985. He finds that the program had a large impact, with each dollar of contribution representing 56 to 93 percent of new household saving. However, the RHOSP exerted particularly strong savings incentives, as both the contributions and approved withdrawals were tax-free (an E/E/E scheme — see Box 1).

that countries that save more also invest more, implying that capital is not perfectly mobile at some fixed rate of return.[20] There are also reasons to believe that equity capital (in small business or in publicly traded shares) is less internationally mobile than is debt. In Canada, the price-earnings ratios for shares of small and medium-sized firms are below those of counterpart shares in the United States, and access to venture capital is more difficult and costly.[21] Tax changes that promote personal savings in Canada would, therefore, likely increase domestic equity investment and so spur growth.

These findings reconcile the fact that many continental European countries have long pursued heavier taxation than have Canada and the United States but achieved reasonable productivity growth. The United Kingdom and British-origin countries such as Australia, Canada, and the United States have a mix of taxes with middling burdens on capital income but low burdens on labor income and consumption (see Table 2). In contrast, the heavier taxing countries of western Europe typically employ a tax mix that bears comparatively lightly on capital income and more heavily on labor and consumption. Those economies have achieved faster productivity growth than have Canada or the United States, albeit at the cost of higher unemployment (probably owing to higher levels of tax and expenditure that offset a more efficient tax base).

A country wishing to maintain a substantial public sector can do so with less damage to growth by orienting its tax system toward a consumption base.

This evidence supports the view that a country wishing to maintain a substantial public sector can do so with less damage to growth by orienting its tax system toward a consumption base. This goal could be achieved in a progressive manner,[22] as we propose, by continued reliance on direct personal taxes but with a base oriented toward consumption for a wider spectrum of taxpayers.[23] The resulting improved growth prospects would help Canada prepare for the rising burden of a growing elderly population.

Operational Simplicity

Operational simplicity is a tax policy objective that can be difficult to meet. Using income as the individual's tax base requires dealing with capital income accrual and distinguishing between real and inflationary returns. Canada taxes income in an imperfect and distorting manner. Some types of assets (savings accounts and bonds) are taxed on an accrual basis, while others (real property and common shares) are taxed only when sold. Thus, the ability to defer taxes is uneven across asset types. Taxing assets only when a gain is realized complicates investors' strategies and tends to lock them into holding their winners too long. Also, many shelter devices are designed to extend tax deferral, complicating tax compliance and enforcement. Furthermore, the

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20 See Feldstein and Horioka (1980) for the original contribution and Jansen (1996) and Helliwell and McKitrick (1999) for more recent supportive results.

21 In comparing price-earnings ratios, one must look at firms in the same industries with comparable growth prospects. Canada's cyclical resources sector has lower ratios than the high-growth technology sector; "counterpart shares" refers to the adjustment for this factor.

22 It could also be achieved by reliance on more regressive payroll taxes and indirect consumption taxes (like European value-added taxes).

23 Our proposal to increase access to tax-recognized savings could be paired with reduced tax rates on capital gains to further lighten capital income taxation and stimulate entrepreneurial activity; see Kesselman (1999) and Mintz and Wilson (2000).

Table 2: ***Average Effective Tax Rates by Type of Tax Base, Selected OECD Countries 1985–94***

	Average Effective Tax Rates on Bases[a]			Rate on Capital as Share of Total[b]
	Capital	Labor	Sales	
		(percent)		
Australia	45	19	9	62
Canada	44	28	11	53
United Kingdom	52	21	14	60
United States	40	23	5	59
Average of above 4	***45***	***23***	***10***	***58***
Austria	21	41	18	26
France	25	43	17	29
Germany	26	37	15	33
Italy	28	32	13	38
Netherlands	31	46	16	33
Spain	19	29	11	32
Average of above 6	***25***	***38***	***15***	***32***

a The measurement of these rates is based on economic classifications for each base type, not by the formal name of the tax. The rate on capital includes personal and corporate taxes on capital income; the rate on labor includes payroll taxes and personal income taxes on labor income; and the rate on sales includes broad-based consumption taxes (retail sales and value-added taxes) and narrow excise levies.

b This is a rough measure of the size of capital income taxes relative to consumption-type taxes.

Source: Leibfritz, Thornton, and Bibbee 1997, 50.

income tax does not distinguish real from nominal capital income and thereby taxes the inflationary component.[24]

Shifting the personal tax base further toward consumption would simplify the system for many taxpayers. The tax-deferred method exempts the present value of the expected stream of capital income with no preferential treatment for any asset type. With the tax-prepaid approach, all tax on savings is paid when the income that purchases the investment is originally earned. Either way, the consumption-based tax does not distort incentives to hold different types of assets or tempt people to lock up investment portfolios. The individual can focus investment strategy on maximizing returns and avoid the tax complications that arise under an income-based tax. Moreover, a consumption tax can appropriately handle inflation by indexing tax brackets — a method far easier than the complex asset-by-asset inflation accounting needed for a pure income tax.

Tax-Deferred and Tax-Prepaid Plans Compared

Under fairly simple assumptions, the tax-deferred and the tax-prepaid methods of implementing a consumption tax base have equivalent economic attributes. To illuminate the relative attractions of the two methods, we examine the conditions under

24 With even modest inflation, taxing capital returns on an income basis can sharply increase the effective tax rate. For example, at an inflation rate of 2 percent, a nominal interest rate of 6 percent, and a tax rate of 50 percent, the effective tax rate on real capital income rises to 75 percent [= 50 × 6/(6 – 2)].

which they differ, showing why tax prepayment would be preferable to tax deferral for expanding the recognition of savings. The former would benefit both lower-income earners who have little incentive to save under the current regime and high-income earners who are constrained by the existing contribution limits. First, we compare these limited movements toward a consumption-based personal tax with proposals for a fully consumption-based tax.

Comparison with Pure Consumption Taxes

Both tax-deferred and tax-prepaid approaches are part of sweeping proposals for personal tax reform. Those schemes would impose no limits on individuals' savings in either tax-recognized form. The well-known flat tax proposal of Robert Hall and Alvin Rabushka (1985) combines tax-prepaid treatment of all savings with a flat tax rate schedule.[25] Because it exempts all personal investment income, the scheme does not need to segregate nontaxable investment income and thus can dispense with formal tax-prepaid savings plans.[26] An example of the tax-deferred method of implementing a consumption tax is the US proposal for an unlimited savings allowance (USA) tax.

Yet, there are good reasons to use tax-deferred and tax-prepaid savings plans to *shift incrementally toward* a consumption base by constraining the amount of income afforded consumption tax treatment. Typical existing systems set a maximum allowance (a percentage of annual labor earnings) based on the savings needed to sustain a worker's accustomed consumption during retirement, combined with an overall dollar limit. Without such limits, individuals with large amounts of wealth accumulated prior to the policy switch could obtain massive tax relief. Governments would also suffer large long-term revenue losses, necessitating higher tax rates on labor income and more distortion in the labor market.[27]

Placing a dollar limit on contributions is unnecessary so long as they are linked to current earnings at a percentage reflecting needs for retirement savings.

By limiting consumption-based treatment of savings related to *current* labor earnings, the tax system can focus its incentives on incremental savings, rather than providing a tax windfall on pre-existing wealth. Yet placing a dollar limit on contributions is unnecessary so long as they are linked to current earnings at a percentage reflecting needs for retirement savings.[28] High earners have a legitimate claim to preserve, on a tax-efficient basis, their accustomed living standards in retirement. But in practice, politics and perception are likely to require an upper limit on annual contributions, even if it is considerably higher than the current $13,500.

Instituting TPSPs with limits would increase operational complexity relative to a full consumption tax. The additional costs would, however, be modest, since Canada already has a system of tax-deferred savings plans. Financial institutions offering tax-

25 Another key element of the Hall-Rabushka scheme is to impose a flat tax at the same rate on all business cash flows; this base is the business counterpart to personal consumption.

26 In the past, the Reform Party of Canada gave tacit support to the Hall-Rabushka approach, and the Economic Council of Canada (1987) supported the tax-deferred approach, as did the Fraser Institute in its parliamentary testimony on replacing the GST.

27 These adverse distributional and revenue impacts may be the primary barrier to adopting pure consumption tax proposals.

28 Some might argue that this approach still discriminates against those who wish to accumulate an estate for bequest from their lifetime earnings, and it clearly is less favorable for savings incentives than a looser contribution limit.

deferred plans could simply create parallel accounts for tax-prepaid contributions. The contribution slips that they already issue to both the saver and the tax department would detail separately the amounts deposited in each type of plan. Withdrawals from the tax-prepaid plans would need no accounting (unless the design limited or penalized withdrawals prior to a specified age). Individuals could transfer from tax-deferred to tax-prepaid plans, although the withdrawal from the former would remain a taxable event.

Dollar ceilings on plan contributions also carry economic costs. Economic theory suggests that RPP and RRSP ceilings may actually *reduce* the savings of high earners, who must undertake incremental saving outside the tax-deferred plans and face personal taxation on their capital income. For them, the limited deductions act as a lump-sum tax cut, raising their net income and current consumption and thereby reducing current savings.[29] For this group of high earners, tax-deferred savings plans are thus perverse in the public policy sense, for they consume tax revenues, provide no incentive to save at the margin, and may actually reduce savings. Lifting the dollar ceiling would extend savings incentives to workers with higher earnings.

One can usefully compare alternative ways of delivering tax relief for capital income. Until the personal tax reforms of 1987, Canadian taxpayers could exempt interest and dividend income up to $1,000 annually. The difference between exempting a limited amount of capital income and allowing limited contributions to a TPSP is that only the latter can be linked to annual and lifetime labor earnings. A capital income exemption, in contrast, is accessible to all taxpayers regardless of their level of labor earnings or source of funds. While the exemption approach is even simpler than instituting a TPSP and is used in some other jurisdictions, it is not equivalent.

The Canadian personal tax system already treats owner-occupied housing and consumer durables as a TPSP would.

Another point to note is that the Canadian personal tax system already treats owner-occupied housing and consumer durables as a TPSP would. The assets and their continuing costs (such as interest expenses and property taxes) are paid out of after-tax income, no deductions are allowed for them, and their future flow of returns (the consumer services they provide) is untaxed. Canadian taxpayers thus have the equivalent of unlimited access to TPSPs — they may buy homes as large as they can afford — creating a bias for saving in this form rather than in business capital. TPSPs that could hold business assets would increase efficiency in the allocation of capital.

Characteristics of Each Plan

Although, as the following analysis shows, TPSP and tax-deferred plans are equivalent for taxpayers who face uniform METRs over their lives, some differences may arise. One is that an RRSP-type plan captures economic rents — an investment return exceeding the normal return to capital — whereas TPSPs let them go untaxed. This difference may appear to favor the tax-deferred approach. However, either type of plan captures part of any rents at the corporate level. Moreover, investors find it hard to predict economic rents, so such rents will enter expectations of the normal rate of

29 A complete analysis would be more complex, as the outcome hinges on the alternative use of the forgone tax revenues. If the same amount of tax relief were delivered through rate cuts at upper incomes, then high earners' savings would be larger without any access to tax-deferred savings. (This analysis corresponds to the economic distinction between income and substitution effects.)

return. To this extent, the two plans would not differ in expected value with respect to their capture of economic rents.[30]

For individuals who face varying METRs over their lifetimes, the two types of plan have different advantages. METRs can vary over an individual's life either because of changing income and a progressive tax rate schedule or because of changes in statutory tax rates. As shown later, a TPSP would provide efficient savings incentives even if METRs vary. For individuals with varying income or consumption levels, a tax-deferred savings plan would also grant a degree of lifetime tax averaging, affording them horizontally equitable treatment *vis-à-vis* individuals with more stable levels. Thus, good policy reasons exist for allowing both types of plan to be used together.[31]

For individuals with varying income or consumption levels, a tax-deferred savings plan would also grant a degree of lifetime tax averaging.

To demonstrate the ways a pure income base, an RRSP-type plan, and a TPSP can vary in their impacts, we consider the effects on $100 of labor earnings saved within each system under four scenarios.

Equal METRs (Scenario 1)

From the taxpayer's standpoint, the key condition for equivalence of the two savings plans is that the marginal effective tax rate at the time of initial saving is the same as at the time of withdrawal. This scenario assumes an METR of 40 percent in both periods and a return on savings of 10 percent (see Table 3, column 1). With the METR unchanged between the periods, both plans yield the same net result. They allow the saver to trade between current and future consumption at an ITR that equals (1 + RR), reflecting the real productivity of capital. This condition for the efficient allocation of resources over time is not satisfied by the pure income tax, as shown at the bottom of the table.

If the government's discount rate for future tax revenue is the same as the rate of return on individual savings, it also must find equivalent the two methods of taxing consumption. The TPSP yields immediate tax revenue of $40, while the tax-deferred method yields $44 of taxes one period later. Since that $44 has a present value of $40, the two revenue streams are equivalent. Of course, the government receives its revenue earlier under the TPSP. Thus, the two plans represent a different time profile of public revenues and a different path for public debt, but they provide the same present value of tax revenue. If the real rate of return equals the discount rate, the present value of taxes for each savings plan is less than the present value of revenue from a pure income tax applied at the same rate.

With tax-deferred plans, government revenue is delayed from the time of saving until the time of withdrawal. This may be a useful way to coordinate the timing of public revenues with the expenditures needed to cover the costs of a growing elderly population. With tax-prepaid plans, the government would obtain these revenues earlier, so it would have to run budgetary surpluses to accumulate the resources needed later to support retirees. If this approach to public finance is not politically viable, the tax-deferred approach may be preferred. But it carries a heavy up-front revenue cost relative to the tax-prepaid method, notwithstanding their present value equivalence under normal assumptions.

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30 The two types of plan may also differ in their risk-taking incentives; see Boadway, Bruce, and Mintz (1987, 143–144) for discussion and references.

31 This analysis derives from Daly (1981), is further elaborated in Davies and St-Hilaire (1987, 30–34) and Boadway, Bruce, and Mintz (1987, 99–103), and is consistent with the brief but formal exposition in Daly and Nagib (1984).

Table 3: *Plans Compared under Alternative Assumptions*

	Scenarios			
	(1) Constant Tax Rate	(2) Constant Tax Rate, Rate of Return > Discount Rate	(3) Declining Tax Rate	(4) Rising Tax Rate
		(percent)		
Assumptions				
Current METR	40	40	50	25
Future METR	40	40	40	60
Rate of return	10	50	10	10
Discount rate	10	10	10	10
		(dollars)		
No savings plan (pure income base)				
Gross amount of labor earnings saved	100.00	100.00	100.00	100.00
Less: taxes at current METR	–40.00	–40.00	–50.00	–25.00
Amount saved outside of plan	60.00	60.00	50.00	75.00
Add: investment return at rate of return	6.00	30.00	5.00	7.50
Less: taxes on investment return at future METR	–2.40	–12.00	–2.00	–4.50
Amount for future consumption	63.60	78.00	53.00	78.00
Present value of taxes[a]	42.18	50.91	51.82	29.09
Tax-deferred savings plan				
Gross amount of labor earnings saved	100.00	100.00	100.00	100.00
No tax (deduction offsets taxability)	0.00	0.00	0.00	0.00
Amount deposited to savings plan	100.00	100.00	100.00	100.00
Add: investment return at rate of return	10.00	50.00	10.00	10.00
Amount withdrawn from savings plan	110.00	150.00	110.00	110.00
Less: taxes on withdrawal at future METR	–44.00	–60.00	–44.00	–66.00
Amount for future consumption	66.00	90.00	66.00	44.00
Present value of taxes[a]	40.00	54.55	40.00	60.00
Tax-prepaid savings plan				
Gross amount of labor earnings saved	100.00	100.00	100.00	100.00
Less: taxes at current METR	–40.00	–40.00	–50.00	–25.00
Amount deposited to savings plan	60.00	60.00	50.00	75.00
Add: investment return at rate of return	6.00	30.00	5.00	7.50
Amount withdrawn from savings plan	66.00	90.00	55.00	82.50
No tax on withdrawal	0.00	0.00	0.00	0.00
Amount for future consumption	66.00	90.00	55.00	82.50
Present value of taxes[a]	40.00	40.00	50.00	25.00
Intertemporal efficiency condition (does ITR = 1 + RR?)[b]				
Pure income base	63.60/60.00 = 1.06 < (1 + RR)	78.00/60.00 = 1.30 < (1 + RR)	53.00/50.00 = 1.06 < (1 + RR)	78.00/75.00 = 1.04 < (1 + RR)
Consumption base (tax-deferred)	66.00/60.00 **= 1.10 = (1+ RR)**	90.00/60.00 **= 1.50 = (1 + RR)**	66.00/50.00 = 1.32 > (1 + RR)	44.00/75.00 = 0.59 < (1 + RR)
Consumption base (tax-prepaid)	66.00/60.00 **= 1.10 = (1 + RR)**	90.00/60.00 **= 1.50 = (1 + RR)**	55.00/50.00 **= 1.10 = (1 + RR)**	82.50/75.00 **= 1.10 = (1 + RR)**

[a] Derivation of present value of taxes:

Pure income base	40.00 + (2.40/1.10) = 42.18	40 + (12.00/1.10) = 50.91	50.00 + (2.00/1.10) = 51.82	25.00 + (4.50/1.10) = 29.09
Consumption base (tax-deferred)	44.00/1.10 = 40.00	60.00/1.10 = 54.55	44.00/1.10 = 40.00	66.00/1.10 = 60.00
Consumption base (tax-prepaid)	40.00/1.00 = 40.00	40.00/1.00 = 40.00	50.00/1.00 = 50.00	25.00/1.00 = 25.00

[b] Boldface type marks the instances in which the condition holds.

High Returns to Saving (Scenario 2)

How do the various tax bases perform in the case of unusually high real investment returns while maintaining a constant METR over time? With an assumed rate of return at 50 percent, well above the assumed discount rate of 10 percent, both savings plans yield efficient temporal tradeoffs for consumption, whereas the return to savings is lower under a pure income tax (see Table 3, column 2). However, the two savings plans now yield different present values of tax revenue. The tax-deferred plan actually produces more taxes than the pure income tax, because the former allows the government to share in the investment returns on a larger amount of savings.

The possibility of high returns should not influence the policy choice. All investments taken together produce an average rate of return, with those yielding abnormally high returns offset by others with low or negative returns. Moreover, no individual knows which investments will produce extraordinary returns, so no one can steer assets to different plans accordingly. In practice, governments use discount rates in line with the private sector's average rate of return on capital. For these reasons, the balance of our analysis assumes that the real rate of return equals the discount rate and focuses on the effects of METRs that vary over time.

Declining METRs (Scenario 3)

Our earlier examples compared plans assuming that the individual's METR was the same while working as in retirement. If the METR is likely to decline, however, the benefits for the saver and the revenue costs to government increase for tax-deferred plans. This situation applies to earners in the top or middle tax bracket who save enough to put them above the thresholds at which income tests reduce public retirement benefits but who land in a lower tax bracket during retirement. It also applies to high earners who make contributions to the RRSP of a lower-earning spouse. And it could apply to most earners if tax rates generally fall in future years.

Given this situation and the same gross amount of labor earnings saved, the tax-deferred plan affords an individual more consumption in retirement than the tax-prepaid savings. Table 3, column 3, illustrates the point, with the assumption that the individual is in the top tax bracket while working and saving but falls to the middle tax bracket when retired. The tax-deferred plan allows him to trade present for future consumption at an ITR of 1.32, terms more favorable than in the absence of taxes (an ITR of 1.10), providing an inefficient overstimulus to savings. But the tax-prepaid plan remains efficient in its treatment of savings even with declining METRs.

Most high earners are likely to undersave, because they are constrained by the dollar limit on annual contributions to tax-deferred plans.

Most high earners in this position today are, in fact, likely to undersave, not oversave, because they are constrained by the dollar limit on annual contributions to tax-deferred plans. Without this constraint, many high earners would save more and equalize their METRs across working and retired years. Thus, efficiency would be restored even with a progressive tax rate schedule.

While individuals benefit from a declining METR under the tax-deferred savings plan, government bears the revenue loss. Even assuming a rate of return equal to the government's discount rate, the two types of plans do not yield the same present value of tax revenue because the tax deduction for savings is valued at the higher (earlier) METR but the tax is recovered on withdrawals at the lower (later) METR. Again, this

result does not necessarily represent unwarranted tax relief. It may simply be a form of averaging whereby the taxpayer pays a lifetime tax rate reflecting high consumption in working years offset by lower consumption in retirement years.

Rising METRs (Scenario 4)

Many Canadians will face a higher METR in retirement than while working, not because their taxable income rises but because of the income tests and clawbacks that operate in the tax and benefit system.[32] For an individual who receives income-tested retirement benefits, withdrawals from tax-deferred plans count as income, reducing entitlements. This tax penalty on savings can more than offset the advantage of deferral, which is already modest for those facing low METRs while working. In this situation, the tax-deferred savings plan offers much-reduced attractions for workers; even saving in a completely nonsheltered form may be more attractive.

The implication is that saving via a tax-deferred plan leaves the individual with far less consumption in retirement than was given up by saving while working. This scenario is shown in Table 3, column 4, where the individual is in the bottom tax bracket while working but saving and faces a higher METR during retirement. This individual does not undertake saving in tax-deferred plans, and savings held in nonsheltered forms bear the tax impact and inefficiencies of income-based treatment. But the tax-prepaid method ensures efficient incentives for saving, so long as the income tests in public retirement programs disregard TPSPs.

While it appears that tax-deferred plans yield the government a bonanza on the present value of taxes (including the taxback of retirement income benefits), it cannot collect much in practice if lower-income earners are deterred from saving in these plans.[33] If seniors' income assistance programs impose low limits on liquid assets, even saving outside registered plans is discouraged. Thus, if any savings incentive remains for low-income earners, they should invest in equity in their homes. Younger individuals with low earnings, who expect to have higher earnings in later years, might accumulate savings in tax-deferred plans if they believe they can accumulate substantial savings before retiring. The tax-prepaid plan imposes the least taxes on low-income earners, but it does no more than provide efficient savings incentives.

The tax-prepaid plan imposes the least taxes on low-income earners.

Many taxpayers find their METRs rising over the course of their working years, even though they do not expect to rely on income-tested public retirement benefits. This pattern reflects the progression of earnings as individuals acquire work experience and job-specific skills. For them, the benefits of tax-deferred savings are limited by the fact that the deductions they are entitled to in earlier years are worth less in tax savings then than if claimed when they arrive in a higher tax bracket. But by delaying their claims, those savers lose the interest that they would earn on deductions claimed earlier. With TPSPs, they would not face this compromise, since an advantage would remain in making tax-prepaid savings even when earnings and tax rates are relatively low.

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32 Indeed, some commentators note that METRs on current work produce an inefficient "tax force to retire" sooner rather than later (see Diamond and Gruber 1999; and Gruber 1999). The tax pressure for early retirement is generally higher in Canada than in the United States.

33 Some individuals who expect to rely on public income support programs during retirement may choose to save in RRSPs but use tax-avoidance strategies. They can begin to liquidate their RRSP savings in the years before retirement or, while retired, make large withdrawals in alternate years so as to obtain public benefits in other years.

Overall Findings

All our numerical illustrations use a single period between initial saving and final consumption. In reality, most retirement savings are held for many years, allowing for compounding of investment returns. This does not affect the ranking of the tax bases, but it has a big impact on the cumulative disincentive to save posed by an income tax. For example, consider a 30-year period between saving and dissaving, a 7 percent annual rate of return (inflation-adjusted), and an average METR of 40 percent. Under an income tax, $1.00 of after-tax savings grows to $3.44 of real consumption in retirement. With a consumption tax applied at the same rate, the savings grow to $7.61 of real consumption, more than twice the level under the income tax.[34]

The two savings plans are consistent and can be used simultaneously, so long as each dollar of saving is given *either* tax-prepaid or tax-deferred treatment, not the benefit of both. If the system exempts the initial savings and the ultimate proceeds of the same money, it departs from a consumption base and instead subsidizes saving.[35] Giving individuals access to both types of plan and letting them choose how to save each dollar also allows them to smooth their consumption over time.[36]

Precedents for TPSPs

In recent years, several countries have added forms of TPSPs to their tax systems.

In recent years, several countries have added forms of TPSPs to their tax systems (see the Appendix). In addition to these foreign precedents, Canada's own Registered Education Savings Plan (RESP) approximates the TPSP format, and its design is worth reviewing. RESPs allow nondeductible contributions for the future post-secondary educational expenses of children. The allowable contributions are fixed dollar amounts (per year and in total) unrelated to the contributor's earnings, income, or contributions to tax-deferred savings schemes. When the funds are withdrawn for approved educational purposes, the portion representing the accumulated investment return is taxable in the hands of the recipient. For students without significant earnings or scholarships, the investment return is, in effect, tax free on account of personal credits, including those for tuition expenses and full-time study. In those cases, the RESP approximates the T/E/E format of Box 1. Since 1998, the provision of Canada Education Savings Grants for RESP contributions has converted the scheme from a tax-neutral vehicle to one that actively favors saving.

Another example is the Association of Canadian Pension Management (2000) proposal that the dollar ceiling for tax-deferred plan contributions be raised at once by 20 percent and eventually doubled. It also proposes a TPSP-like device for the interim: "a new individual retirement account which would be funded with after-tax money, but

34 The calculations are as follows: for the income tax, $[1 + 0.07 (1 - 0.4)]^{30}$; for the consumption tax (using the tax-prepaid method, though the tax-deferred method yields equivalent figures), $(1 + 0.07)^{30}$. Taking the rate of return on a nominal basis would further widen the divergence in total returns to savings, as an income tax bears on the inflationary component of investment returns whereas a consumption tax does not.

35 Poddar and English (1999) offer a wide-ranging review of the taxation of savings in Canada and cite examples of the inconsistent or overlapping application of consumption tax principles.

36 Some earlier consumption tax proposals suggest this dual approach as a means for individuals to self-average their taxes given a progressive tax rate schedule. See the US Treasury Department proposal (United States 1977) as well as Mieszkowski (1980) and Bradford (1987).

where the accumulation of investment income, and ultimate withdrawal upon retirement, would be tax free." The association suggests this TPSP allow contributions of 9 percent of earned income in excess of $75,000 (the point at which current tax-deferred schemes peak out) and require systematic withdrawals beginning at age 69, like RPP and RRSPs. The scheme would be kept simple by having no carryforwards of unused contribution room and no employer-based pension version (Association of Canadian Pension Management 1997). Although helpful to very high earners, this version of a TPSP would exclude low- and even above-average-income earners. It would also allow a contribution rate on earnings just half that of current tax-deferred schemes and that could not be used interchangeably with them.

A recent suggestion is a "retirement income and home ownership plan" that has some TPSP attributes.

Another recent suggestion is a "retirement income and home ownership plan" that has some TPSP attributes.[37] Under this scheme, older homeowners could move to smaller houses and deposit the difference in home values in a segregated fund within their RRSP. These amounts would neither be tax-deductible nor affect limits on ordinary RRSP contributions. The funds would accumulate tax-deferred investment returns, and withdrawals, aside from the principal contribution, would be taxable. The RIHOP offers an appealing way to instill greater tax neutrality for older homeowners and increase the liquidity of housing stock. However, the scheme would fall well short of the economic benefits of a true consumption tax base since some double taxation would still fall on savings upon withdrawal.[38]

Thinking about Canadian TPSPs

These recent innovations in savings policy form a backdrop for thinking about TPSPs for Canada. Some questions to consider are:

- What should be the predominant concern in expanding the tax recognition of savings: stimulating individual savings to improve income replacement in retirement? Improving economic efficiency and growth by shifting the tax base further toward consumption? Or improving the equitable tax treatment of savers *vis-à-vis* nonsavers?
- What are the current usage patterns of Canadian tax-deferred savings plans? What do they indicate about barriers to savings? How might tax policy best be crafted to overcome these barriers? What does this suggest about the relative attractions of TPSPs and tax-deferred savings plans?

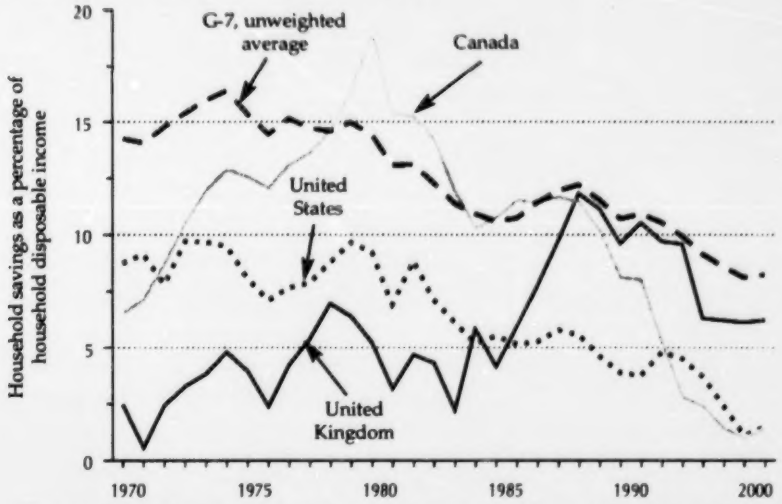
Objectives of Tax Policies for Savings

From the 1970s through the early 1990s, the data reinforce Canadians' traditional view of themselves as strong savers. But by the last half of the 1990s, the household savings

37 The RIHOP is detailed in Baxter, Smerdon, and Ramlo (2000). The scheme would need to be refined to prevent its use as a tax-avoidance device; for example, limits might be placed on the dollar amounts or frequency of usage and on the minimum time of residence in each of the two homes.

38 For the analysis of this nominal receipts tax base, see Kesselman (1982). The results can vary somewhat, with a nominal receipts base coming closer to a consumption base the longer the holding period and the higher the rate of investment return. This tax treatment has been used for nondeductible contributions to standard individual retirement accounts by higher-income US taxpayers who are restricted from making deductible contributions.

Figure 1: *Household Savings Rates, 1970–2000*



Note: The amounts include savings by households and private unincorporated businesses; they are computed on a gross and national basis for most of the countries. See Box 2 for a review of issues in the measurement of savings and the relation between household and total national savings.

Sources: OECD 2000, 268; and the C.D. Howe Institute.

rate had plummeted even below that in the United States, where low savings have been a longtime concern. As shown in Figure 1, UK savings rates have also fallen somewhat in the past few years but not nearly so far as those of the United States and Canada. All other Group-of-Seven (G-7) countries maintained much higher savings rates through most of the period, likely, in part, because of tax systems that are much more heavily based on consumption and labor income and much less reliant on capital income (refer to Table 2). Of course, nontax factors, such as slow economic growth and the stagnant real after-tax incomes of Canadian households for most of the early 1990s, could explain depressed savings rates. Various issues also arise in the measurement of savings that may overstate the downward trend (see Box 2).

The policy issues for Canada are manifold. The personal savings rate is extremely low among low-income earners. A large proportion of retirees have minimal savings in tax-recognized plans or in taxable savings.[39] Incremental savings by middle- and high-income earners are exposed to double taxation or diverted to overinvestment in owner-occupied housing. In either case, the result is economically inefficient, since taxpayers are not permitted to undertake their desired saving on a tax-neutral basis.[40] Undoubtedly some high earners are induced to shift their savings to foreign tax havens.

Even countries that have introduced TPSPs (see the Appendix) give much more generous room than Canada does for contributions to tax-deferred plans by higher-income earners. In the United Kingdom, personal pension schemes allow annual contributions that exceed £16,000 (about C$35,000); the £7,000 annual allowance for tax-

39 About 37 percent of all retirees qualify for the steeply income-tested GIS benefits (Canada 1999b).

40 Many higher-income earners who are constrained by RRSP limits are also induced by the tax system to make their incremental savings via life insurance policies that provide for tax-deferred accumulation. While these resources are not lost to the Canadian economy, the excess use of such vehicles for savings involves administrative costs and economic inefficiencies.

Box 2: *Issues in the Measurement of Savings*

The measurement of savings is affected by factors that the official statistics do not recognize. These issues may in part offset the sharp decline in measured personal (or household) savings of Canadians between earlier decades and the 1990s, particularly the latter 1990s, as shown in Figure 1. First, savings rates are mismeasured by the failure to include capital gains as a source of income and saving in the national income accounts (Coiteux 1999). That stock markets have been more buoyant in the United States than in Canada for most of the past decade may suggest that the "true" US savings rates are considerably higher than the Canadian. Second, low inflation rates for most of the 1990s also distort the comparison of savings rates with those of earlier years (Jump 1980). During periods of higher inflation, the official statistics tend to overstate the real rate of savings because part of the measured amount is needed simply to maintain the real value of existing wealth.

Additionally, personal savings are just one component of total national savings available to an economy for domestic investment. The other major sources are business savings, net capital inflows, and net public sector savings or dissavings. The last item has exhibited large swings over the past several decades. Public sector deficits emerged in Canada in the later 1970s and became very large in the aftermath of the recessions of the 1980s and early 1990s, with some moderation in between. These deficits acted as a large drain on total savings available for domestic investment. The sharp decline of public sector deficits in the later 1990s and their recent disappearance has offset a substantial part of the decline in personal savings, thus muting the impact on total domestic savings. Despite these effects, shifting the personal tax toward a more saving-friendly consumption base would — for a given level of tax revenues and public budgetary balance — increase the total national savings available for investment in Canada.

prepaid "individual savings accounts" is additional. The United States allows annual deposits of up to US$30,000 (about C$45,000) for defined-contribution pension plans. The large allowances for tax-deferred saving in the United States also help to explain the low income limits for deductible contributions to standard individual retirement accounts (IRAs) and the more generous income limits for tax-prepaid Roth IRA contributions. In contrast, Canada restricts contributions for all tax-deferred saving to a comparatively low $13,500 per year.

In all, what Canada needs are well-formulated reforms to tax policy that aim simultaneously at improving savings incentives for low- and middle-income workers, increasing access to tax-efficient saving for high earners, and enhancing the economy's efficiency and growth. Even if the aggregate savings response were limited, economic growth would be spurred by more efficient allocation of resources over time and between the productive business sector and areas such as housing and overseas asset holdings. These reforms would also improve the equitable lifetime tax treatment of savers *vis-à-vis* nonsavers.[41]

Use of Existing Tax-Deferred Plans

Canadian provisions for tax-deferred savings carefully integrate contribution limits for RPPs and RRSPs, giving workers roughly equal access regardless of their employment status or their employer's provision of a pension plan.

41 This lifetime equity argument for shifting the tax base further toward consumption is similar to the argument often made for forced savings via mandatory public pensions.

Under the current system, each earner is entitled to contribute annually to tax-deferred savings plans an amount equal to 18 percent of earnings for the previous year, to a maximum of $13,500. Hence, the allowable contribution to an RRSP equals this amount less a pension adjustment, representing the sum of the worker's and the employer's contributions to an RPP, if any. There is liberal carryover provision to future years for any unused contribution room. Moreover, individuals can defer the tax deduction to a future year when they expect it to be more financially advantageous (because they expect to be in a higher marginal tax bracket).

From 1991 through 1997, close to three-quarters of taxfilers of working age saved for retirement through RPPs, RRSPs, or both.

From 1991 through 1997, close to three-quarters of taxfilers of working age (25 to 64) saved for retirement through RPPs, RRSPs, or both.[42] Almost half saved consistently in each of these years, and another quarter saved less regularly. Most individuals earning $30,000 to $39,999 and virtually everyone in higher-income groups saved regularly or consistently for retirement. Individuals with incomes of $40,000 or more accumulated over 70 percent of the total savings, although they represented only about a quarter of all taxfilers.

During the same period, almost a third of taxfilers saved through neither RPPs nor RRSPs. Most of those individuals (83 percent) had incomes below $20,000, and 60 percent of the nonsavers were women.[43] However, at every income level except above $60,000, women were more likely than men to have saved through these vehicles, and their average savings in 1997 exceeded men's for each income level from $20,000 to $80,000. The lowest saving participation was among the youngest group, 25 to 34, likely because of their low earnings and high current consumption needs. Many in this age group had not participated at any time from 1991 through 1997.

In 1997, Canadian taxfilers of working age saved 11.8 percent of their total income through RPPs and RRSPs, a proportion that had risen steadily from 9.7 percent in 1991. All the same, Canadians contributed only 12 percent of the $185 billion they could have contributed to RRSPs in 1997 (including the carryforward of contribution space from previous years). Only one in ten taxpayers with RRSP room made the full allowable contributions. But more than half of taxpayers with incomes above $80,000 used virtually all their allowable amounts;[44] the average contribution by the heavy savers was $12,835, close to the maximum allowable.

The relative importance of RRSPs *vis-à-vis* RPPs rose during the 1990s. RRSPs accounted for 42 percent of total savings in the two types of plans in 1991, but this figure rose to 55 percent by 1997. For individuals with incomes between $40,000 and $79,999, savings for retirement through RPPs exceeded those through RRSPs. Taxfilers in all other income groups were more likely to rely on RRSPs, typically because they did not belong to RPPs.

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42 The figures in this and the following paragraphs draw primarily on Statistics Canada (1999) and secondarily on Akyeampong (1999).

43 That women's overall rate of saving participation is lower than men's is explained by their lower average incomes.

44 Their participation rate was dragged down by individuals with access to the $500,000 lifetime capital gains exemption for investments in small business and farm assets. In 1996, the two groups of high-income, self-employed taxpayers with low RRSP participation rates were farmers (21 percent) and business proprietors and partners (15 percent).

Barriers to Savings

Although the central part of many workers' retirement savings strategies is existing tax-deferred savings plans, there are clear deficiencies for both the highest earners and low to moderate earners. Many high earners are constrained by the dollar limit on annual contributions. Many low and moderate earners are inhibited from saving (or saving more) by the combination of pre- and post-retirement incentives in existing tax-deferred savings plans. Tax-recognized savings could be adapted to relieve those deficiencies.

High Earners

The simplest way to address savings barriers for high earners is to sharply increase the dollar ceiling for RPP and RRSP contributions, while retaining the 18 percent limit on earnings. Yet raising this ceiling would entail difficulties of political perception (because RRSPs are often seen as tax shelters for the rich) as well as up-front revenue cost (because additional contributions would reduce tax liabilities at the top marginal rate). In contrast, introducing TPSPs would entail no up-front cost, improving the immediate budgetary outlook. And current year full taxation of the underlying earnings would enhance the political perception of the scheme.

Introducing TPSPs would meet the economic efficiency goals for savings-related tax policy.

Introducing TPSPs would meet the economic efficiency goals for savings-related tax policy (as would an increase in allowable contributions to tax-deferred schemes). It would also avoid an undesirable characteristic of the current scheme: the incentive for high earners with large accumulated RRSP balances to emigrate in order to avoid the heavy tax burden on withdrawals.[45] This incentive would not arise with the TPSP format, since the tax would be fully paid at the outset.

Low and Moderate Earners

Savings barriers for low and moderate earners are complex and varied. Likely elements are:

- an inability to free up enough current income to save;
- a public retirement system that provides adequate support relative to their work earnings;
- a myopic view of the urgency of saving versus current consumption; and
- a rational calculation or implicit understanding of the poor return to private saving given steeply income-tested public retirement benefits.

For many persons whose lifetime earnings are low or even middling, the first two barriers may dominate, and it is not clear that any form of tax-recognized savings plan could be effective. Even at earnings that approach the median level, many workers find that the combination of public and employer-based pensions will allow them to maintain their accustomed living standards without any discretionary private savings.

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45 For most countries with which Canada has tax treaties, RRSP withdrawals by tax nonresidents are subject to a flat 25 percent withholding rate, independent of the amounts withdrawn. This is roughly the rate for a bottom-bracket taxpayer resident in Canada and much below the 40 to 50 percent rates that high earners face on these withdrawals if they remain in Canada.

For example, consider a couple with combined annual earnings of $50,000. Their take-home pay is about $40,000 after taxes and other employer deductions. In retirement, their OAS benefits will total about $10,000 per year. Assume that their benefits from the Canada or Quebec Pension Plan (CPP/QPP) will be $12,000 and those from an employer pension another $12,000. Thus, their total retirement income will be about $34,000 — perhaps $30,000 after tax. But as retirees the couple will bear neither the cost of raising children nor mortgage payments. Hence, they are likely to enjoy a higher real living standard in retirement with $30,000 net than they did with $40,000 net while working.[46] If they wish to smooth their lifetime consumption, they would not choose to save more even without high METRs in the tax and transfer system for retirees. The forced saving via their RPPs and CPP/QPPs along with accumulating home equity is sufficient.

But in the case of moderate earners without children, owned homes, or employer pension plans, there will be no sharp fall-off in private income needs as they approach retirement. For many — at least those above the lowest earnings level — it is rational to save privately in order to maintain accustomed levels of consumption in retirement. But here they face savings disincentives from the high METRs of the tax and transfer programs. A shift from tax-deferred to tax-prepaid savings vehicles would help overcome this savings barrier.

For workers with myopia about their retirement needs — which apparently afflicts people at all but the highest earnings levels[47] — the form of tax-recognized saving might make a difference. Such individuals may actually prefer the *immediate* tax savings of the existing schemes to the *future* returns of a TPSP (Feenberg and Skinner 1989). A more effective policy to promote savings among this group would be to raise the benefit and contribution rates of a public contributory scheme, such as the CPP/QPP, or to impose mandatory employer pension coverage, as Australia does. A potential drawback of either approach is the payroll-tax-like effect of discouraging the employment of lower-skilled workers.[48]

For the many earners who are rational and at least somewhat informed about the tax and transfer system, TPSPs could provide an incentive to save.

For the many earners who are rational and at least somewhat informed about the tax and transfer system, TPSPs could provide an incentive to save. Nontaxable individuals would find that TPSP contributions (like RRSP contributions) did not save them any current taxes, but they would never have to pay tax on their investment earnings. And even if they qualified for income-tested public retirement benefits, their TPSPs might not reduce their future benefits, depending on the design of the transfer programs. Moderate earners who now concentrate their savings in home equity rather than tax-deferred plans — to avoid the high taxbacks of public retirement benefits — would also find more neutral incentives for savings via TPSPs.

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46 Many provincial programs further raise the real consumption levels of retirees through prescription drug plans, property tax credits, preferential public fees, and so on.

47 By Diamond's (1977) estimates, many workers have ratios of wealth to income that are unaccountably low if they are rationally attempting to maximize their lifetime welfare. The incidence of inadequate savings declines with income and for those with private pension coverage.

48 If workers are rational and value prospective future retirement benefits (contributory public schemes or private employer schemes), this disemployment effect should not arise; see the distinction between benefit-linked and general payroll taxes in Kesselman (1997, ch. 2).

Design Features for TPSPs

Canadian TPSPs would need to be designed to meet the cited objectives and to complement the existing tax provisions for savings. Any new plan should pose few if any complications to the understanding or practical operation of the system for private retirement savings. Our preferred design of a TPSP places a high premium on simplicity,[49] and we suggest the following basic approaches:

Our preferred design of a TPSP places a high premium on simplicity.

- Investments allowed in TPSPs should be no more restricted than for current RRSPs.
- Contributions allowed to TPSPs should be fully integrated with those for the existing tax-deferred savings plans.
- Early withdrawals from TPSPs should not be restricted or penalized, but, similar to RRSPs, there could be mandatory termination of TPSPs at age 69.
- Transfers from RRSPs to TPSPs could be allowed, so long as the holder pays the associated income tax.

Limits and Structure for Contributions

The limit of 18 percent of earned income on contributions to existing tax-deferred savings plans is based on past estimates of the savings needed to sustain a retired worker's accustomed living standards. The dollar limit of $13,500 for annual contributions is intended to cap access to tax-recognized savings for those with more than twice average full-time earnings.

For low- and middle-income earners, the existing contribution limits are adequate to satisfy the income-replacement policy goal. But the dollar ceiling is binding on higher earners, reducing the efficiency of the tax treatment of their retirement savings. To remedy this problem, the dollar limit could simply be raised, but this policy might not be well matched to the goal of income replacement. Because higher-income earners face higher income tax rates, the take-home income they need during retirement constitutes a smaller proportion of their gross than lower-income earners need. Therefore, one option is to allow declining contribution rates for earnings above $75,000 — for example, 15 percent of earnings from $75,000 to $125,000 and 12 percent of earnings from $125,000 to $200,000, for an overall contribution limit of $30,000.[50]

Given a worker's total allowable contributions to existing tax-deferred plans and the new TPSPs, should the split between the two forms be constrained in any way? The division of savings between RPPs and RRSPs is currently unrestrained. Since employer-based pension plans have mandatory contribution rates, covered workers can use the residual for an RRSP, and tax principles offer no reason for constraining individuals on how they would divide their contributions between TPSPs and RRSPs. There may, however, be a policy concern: that low- and moderate-income earners would tend to save primarily via TPSPs and then draw heavily on income-tested public benefits when

49 Our discussion of these issues is intended as suggestive and preliminary, rather than conclusive.

50 One disadvantage of using a graduated scale, rather than a flat rate, for allowable contributions is that it would discriminate between individuals with the same average earnings but different year-to-year variability. The result would depart from horizontal equity, as does the existing ceiling on contributions based on annual earnings.

retired. This possibility might justify setting a dollar limit (say, $3,000) on annual TPSP contributions, but that approach would hinder high-income earners' access to the plans.[51]

Other options exist for increasing contribution limits for tax-recognized savings. Since contributions have a larger effect on tax liability for taxfilers in higher income brackets, the associated revenue impacts may be an issue. Alternative designs for allowable contributions to TPSPs, RPPs, and RRSPs yield different outcomes for tax revenues and savings incentives. Consider three illustrative designs, which all assume a significant increase in allowable contributions to overall tax-recognized savings:

- Contributions above $13,500 per year are restricted to TPSPs, and the individual can opt to contribute any portion of the first $13,500 to a TPSP rather than a tax-deferred plan. This approach would entail zero immediate revenue cost if only new funds were deposited in TPSPs; it would raise immediate tax revenues if individuals diverted previously planned RRSP contributions to TPSPs.
- Allowable total contributions to tax-deferred plans are reduced to, say, $10,000, but there is no limit on how much of the increased total of tax-recognized savings can be contributed to a TPSP. This approach would raise immediate tax revenues, but it would also require redesign of existing RPPs for higher-income earners. (To avoid having to offer tax-prepaid employer plans, the $13,500 ceiling could be retained for RPPs but reduced for RRSPs.)
- Allowable total contributions to all forms of tax-recognized plans are linked to their composition. Each dollar contributed to a TPSP counts half as much as a dollar to a tax-deferred plan, while the total is subject to the percentage-of-earnings limit.[52] This approach would strengthen higher-income earners' incentive to save, and it would increase current tax revenue as savings were diverted from tax-deferred to tax-prepaid form.

The TPSP should be integrated with Canada's overall system for tax-recognized retirement savings.

The TPSP should be integrated with Canada's overall system for tax-recognized retirement savings. Under each proposed design, total contributions to tax-deferred and tax-prepaid plans would be limited, and it would be appropriate to allow TPSPs the same carryforwards as existing plans.

Holdings and Operation of TPSPs

TPSPs could follow in most respects the current Canadian practice for tax-deferred plans. Given TPSPs' consumption-based tax treatment, there is no reason to extend to them either dividend tax credits or preferred tax rates on capital gains. And given the need for security in retirement saving, continuation of RRSPs' prohibition of margined or debit positions makes sense.[53]

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51 Our preference is to address concern over these issues by requiring deregistration of or distributions from TPSPs beginning at age 69.

52 Notice that this approach could be used without lifting the current total limit on contributions. With each TPSP dollar counting as only half a dollar, individuals could contribute $27,000 to a TPSP if they made no contributions to tax-deferred plans. If the 18 percent limit held, only earners of at least $150,000 could reach the $27,000 level.

53 While initiating TPSPs might be a handy excuse to relax the constraint on foreign asset holdings, in principle this change should also be made for tax-deferred savings plans. Problems with the current rules on foreign holdings are assessed in Burgess and Fried (1999) and Fried and Wirick (1999). The...

TPSPs would need to be accounted for separately from RRSPs and, if tax-prepaid forms were instituted for employer-based pensions, separately from standard RPPs. The reason is that TPSPs would reverse the treatment given tax-deferred plans: contributions would not generate tax deductions, and withdrawals would not be taxable. The tax authorities would have to track total TPSP contributions to ensure that individuals were not obtaining this tax treatment on a larger part of their personal savings than intended. These matters present no innate difficulties, and the information slips and record-keeping needed by taxpayers would be little different from existing schemes.

Individuals should be allowed to transfer RRSP account assets to a TPSP. The tax liability arising on transfers to TPSPs could be paid out of the transferred funds, if desired, or directly by the taxpayer. The latter method would offer the advantage of a greater total accumulation toward retirement, an attraction of the TPSP for high savers. Conversions would be attractive for taxpayers who expect to face a higher METR during retirement than they do at the time of the transfer. This would facilitate tax averaging for individuals in years of unusually low earnings and improve horizontal equity for individuals with similar lifetime (but not annual) incomes.

We can think of no compelling reasons to restrict conversions from RRSPs to TPSPs or to limit the amount an individual could convert in any given year. Conversion amounts should not count against total allowable contribution amounts for all tax-recognized plans. The converted funds would simply be changed from one form of consumption base (tax-deferred) to another (tax-prepaid), and the associated tax would be paid.

The final issues for the design of TPSPs concern restrictions on the age at which people may make contributions and withdrawals. Individuals may not make RRSP contributions after the year they attain age 69. If the objective of TPSPs is simply to facilitate retirement saving, a similar age restriction appears appropriate.[54] In any case, individuals must have labor earnings in order to make contributions under either scheme, and relatively few people over age 69 do so.

What is less obvious is whether the design should impose an upper age limit on *holding* of TPSP balances. RRSPs must be converted (to an annuity or registered retirement income fund) by the end of the year in which the individual turns 69. This rule is intended to protect government tax revenues; without it, wealthier retirees would tend to hold their RRSPs until death, the primary beneficiary being their estate. With the TPSP format, tax on the principal amount saved would be prepaid at the time of contribution, so tax deferral is less of an issue. Allowing continued holdings within TPSPs even up to death would still be consistent with a consumption-based tax.

Nevertheless, one can think of reasons for limiting the age at which individuals could continue to hold their TPSPs. Balances in those accounts would enjoy tax exemption on investment earnings, and it may be appropriate to restrict this benefit to retirement needs. Moreover, the use of TPSPs to avoid the high taxback rates of public retirement benefit programs might not be acceptable if carried too far. TPSPs could be

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Note 53 - cont'd.

...innovation of RRSP-eligible mutual funds that effectively hold fully foreign assets undermines any possible remaining reasons for retaining the limit.

54 The lack of an upper age limit on contributions would not offend consumption tax principles, and, even without such a limit, any balances remaining in the plan at death would become taxable investments again when received by the estate.

deregistered at age 69, or mandatory disbursements could begin at that age. This approach would expose the subsequent *investment* income to benefit taxbacks, placing TPSPs on a more equal footing with tax-deferred savings. Yet the impact would not be as severe as with RRSPs because TPSP withdrawals themselves would be neither taxable nor income testable.

Special Types of TPSPs

So far we have considered only individual TPSPs to which the worker would make direct contributions. Could the scheme be broadened to include employee-paid plans, such as RPPs, and spousal plans, similar to spousal RRSPs?

Tax-prepaid employer pensions would have attractions for some workers for reasons similar to those of employee TPSPs. This raises the question of feasibility, because some complications would arise. Existing RPPs, which include both defined-contribution (money-purchase) and defined-benefit plans, allow tax deferral by giving the employer's contribution a deduction against business income tax and the employee's contribution a deduction against personal tax. Since the employer's contribution is not taxable to the employee, none of the funding is taxed at the outset.

The design of a tax-prepaid counterpart would require differences. The employee's contribution would not be deductible for the personal tax. The employer's contribution would continue to be deductible against business income, but it would be attributed to the employee as a taxable benefit. (Simply denying the employer a tax deduction would not be arithmetically correct, since the firm's tax rate generally differs from employees' tax rates.)

Tax-prepaid employer pensions would thus have to be accounted for separately from tax-deferred employer pensions, but an employer could have both types of plans operating together. The pension adjustment figures reported to the employee and the tax department would include all contributions for him to both types of employer pensions. For defined-benefit RPPs the employer's contribution could continue to be imputed on the basis of various assumptions; any inaccuracies could be corrected in taxing the ultimate pension benefits.[55] With tax-prepaid employer pensions, however, inaccuracies in the imputed taxable benefit could not be corrected later. Thus, it might be advisable to restrict tax-prepaid employer pensions to the defined-contribution variety.

On balance, it appears simpler to institute individual TPSPs without companion tax-prepaid employer pensions.

On balance, however, it appears simpler to institute individual TPSPs without companion tax-prepaid employer pensions. This approach would avoid complications and be better understood by the public. Tax-prepaid employer pensions could be introduced at a later date if there were sufficient interest.[56]

The contribution limits might be designed so that highly paid employees were constrained by a $13,500 annual limit on RPP accruals but could use TPSPs for incremental savings associated with earnings above $75,000. This approach might, however, seem unfair to employees covered by employer pension plans, some of whom would prefer to save in a tax-prepaid manner. A solution would be to allow individual employees to opt out of the employer's plan and have the equivalent funds directly deposited to a TPSP.

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55 Any inaccuracies in imputation would still affect the pension adjustment and, hence, the employee's ability to contribute to an RRSP.

56 Note that legislation introduced in the US Congress proposes exactly such plans.

The spousal RRSP gives the contributor the current tax deduction but taxes withdrawals in the spouse's hands. Given the existence of these plans, allowing spousal TPSPs seems reasonable, although they would be less attractive than spousal RRSPs for couples who use them for income splitting.[57] Taxability of contributions to a spousal TPSP, like a regular TPSP, would remain with the contributor.

Policy Issues in Adopting TPSPs

TPSPs and higher limits for contributions to tax-recognized savings would be advantageous to many lower- and upper-income earners.

Our analysis so far shows that TPSPs and higher limits for contributions to tax-recognized savings would be advantageous to many lower- and upper-income earners, permitting them to save on an economically efficient basis and to better provide for their retirement needs. But before Canada pursues TPSPs, three broader issues of public policy need to be addressed.

The Sustainability of TPSPs

Would a TPSP be sustainable in practice? In other words, could governments *credibly* commit not to tax future returns on and withdrawals from TPSPs? Would there be any assurance that governments will honor a commitment to impose no further tax on TPSPs beyond the tax paid prior to the initial deposits?[58]

Ultimately, nothing could entirely prevent governments from changing course. However, the terms on which TPSPs would be provided are likely to deter authorities from blithely changing the deal. Under most choices for TPSP design, an individual who makes a contribution to such a plan would forgo the opportunity of making a larger contribution to an RRSP. Hence, it would be patently unfair for a government to decide to tax TPSP earnings or withdrawals, when the initial contributions had already borne tax. But unless governments could give sufficient credibility to their commitment on TPSPs, few individuals would choose to contribute to them at the expense of RRSP contributions.[59] Public opinion would remain the ultimate check on government behavior.

Similar sustainability issues arise for the treatment of TPSPs by income-tested transfer programs. A key goal in proposing TPSPs as an option for low- and moderate-income workers is to give them savings incentives that they do not currently have with RRSPs. When retirees withdraw funds from RRSPs, high clawback rates reduce public benefits. Even if withdrawals of TPSP funds are not taxable, governments might find it tempting to ignore the complementary commitment for transfer programs and to let those withdrawals trigger benefit clawbacks.

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57 It is puzzling why Canadian tax law allows this when it vigorously attempts to control other forms of tax splitting. On equity grounds, the opportunities for retirement income splitting between spouses should be extended to workers who rely on employer RPPs (Association of Canadian Pension Management 1997).

58 In economic jargon, the issue is time consistency. This issue does not arise with tax-deferred plans such as RRSPs because, by design, all withdrawals and accumulated earnings are to be taxed.

59 When the United Kingdom introduced its current TPSP program, in its 1998 budget, it partially addressed this problem by including a pledge to continue the program for at least ten years. This potential time limit amounts to an explicit promise not to tax at any time withdrawals from plans entered into while the program is on offer.

Sustainable transfer treatment could be aided by having programs that now apply asset tests consider TPSP holdings along with RRSPs and other liquid savings. Relevant here are provincial income assistance programs, which typically require claimants, before qualifying for benefits, to dispose of any liquid assets above meager exemption levels.[60] However, the *federal* income-tested benefits for seniors — the GIS and the OAS with its tax clawback at upper incomes — do not contain asset tests. So, while GIS and OAS benefits should be unaffected by TPSP holdings, provincial top-ups could be adjusted, as local policymakers saw fit, without undermining the provision's rationale or durability.

Of course, one might argue that the existing asset tests in provincial transfer programs are themselves unsound policy. Indeed, sweeping reform of income-transfer programs at both the federal and provincial levels, to account for wealth holdings in a consistent and horizontally equitable manner, would be a sensible option. All financial and tangible assets, including home equity, would then be included in a means test that attributed an income flow to each dollar of wealth, and RRSP withdrawals would be disregarded. Pension assets and locked-in RRSPs would then be treated like conventional RRSP balances, and individuals who save in the form of home equity would enjoy no preference. The odds of such comprehensive reforms being undertaken appear low, so TPSPs would have significant attractions in restoring incentives for saving.

Revenue Cost and Timing

Many workers who do not now save via RRSPs would find TPSPs attractive.

The impact on government revenue, in both magnitude and timing, is important in assessing our proposal. The hike in contribution limits would not affect low- and middle-income earners, but many workers who do not now save via RRSPs would find TPSPs attractive. First are those who currently save outside registered plans; most of their TPSP savings would be a diversion of those funds. Some revenue cost would arise because these individuals would have less capital income subject to personal tax in future years. That cost would, however, be neither sudden nor large. Second are those whose TPSP contributions would be entirely new savings. The loss in personal tax revenue would be zero; their additional savings would mean lower current consumption and therefore reduced sales tax revenue, but that loss would be fully offset in future when TPSP proceeds are spent.

Potentially larger revenue losses might arise from higher earners who are now constrained by the dollar ceiling on registered savings. The cost would hinge on how the higher limit was applied to tax-prepaid *vis-à-vis* tax-deferred savings. Simply raising the dollar limit for current tax-deferred plans would have an immediate revenue cost[61] partly offset by increased future tax liabilities from RPP and RRSP withdrawals. Similarly, a large immediate revenue cost would result from introducing TPSPs with higher dollar limits but without conditions on how much could be saved in either type

60 These asset tests typically exclude locked-in RRSPs, pension assets, and home equity. The injustice of this practice was noted in an *Ottawa Citizen* editorial, "Don't penalize poor for buying RRSPs" (February 9, 2000), which pointed out that parents with RRSPs over $5,000 (or $6,000 if there are two children) become ineligible for Ontario's subsidized daycare, yet members of employer RPPs with much larger balances are not disqualified.

61 The Department of Finance (Canada 1999a, 112) estimates the revenue cost of raising the contribution limit by $1,000 to be $200 million per year. Larger hikes in the ceiling would carry less-than-proportionate increases in revenue cost since the room would be used by fewer taxpayers.

of plan. Many higher-income earners would then opt to increase their RRSP savings. (Recall that tax-deferred savings are more attractive than tax-prepaid savings for individuals expecting to face a lower METR when retired and for those using spousal RRSPs for income splitting.)

If the dollar contribution limit were raised with the proviso that the increase could be used only for TPSP contributions, the revenue cost would be zero immediately but rise over time as TPSP balances rose. If the total dollar limit were raised but the limit for tax-deferred plans reduced, near-term revenues would increase but later tax revenues would fall, as higher-income earners would have fewer taxable funds to withdraw in retirement. Whether *total* discounted tax revenues would rise or fall is uncertain because higher earners would be denied tax deductions on more of their savings (at higher METRs) while working. Finally, if higher earners could undertake more tax-recognized savings only by saving less in tax-deferred plans, many would make this choice,[62] reducing the revenue cost relative to that of an unconditional hike in the limit.

Limiting the policy choice to *either* raising the dollar limits on tax-deferred schemes or allowing TPSPs would present an additional twist. The discounted lifetime taxes paid under TPSPs would exceed those paid under hypothetically expanded RRSPs because of the typically declining METRs high-income earners experience during their retired years (refer to the present value figures in Table 3, column 3). Subsequent cuts in the middle- and higher-income tax brackets would magnify this effect. Hence, offering TPSPs would accelerate and increase high-income earners' tax payments relative to raising RPP and RRSP contribution limits.

In brief, the revenue cost of introducing TPSPs and higher contribution limits would hinge on design features and behavioral responses. It would also depend on the extent to which high-income earners' incremental contributions to tax-recognized plans were substituted for overinvestment in housing, tax shelters or avoidance vehicles such as universal life insurance policies, or outright evasion such as offshore holdings.

The revenue cost of introducing TPSPs and higher contribution limits would hinge on design features and behavioral responses.

The impact of additional personal savings on economic growth would further affect results. If the growth effects of higher savings were quite small, the proposed policies would likely reduce total tax revenues in the distant future. But depending on the precise design, that total would probably rise in the initial and earlier years, mainly as a result of reduced access to or switches away from tax-deferred savings for higher earners. With this general shift in the timing of public revenues, the government could and should run larger surpluses than otherwise in the earlier years.[63]

That governments might lack the discipline to run larger surpluses for an extended period may weaken the case for shifting toward TPSPs. One device that might bolster their fiscal durability is a notional budgetary account to track total tax paid on the income underpinning TPSP contributions. These funds could, in principle, be insulated from ordinary pressures to spend the fiscal surplus,[64] helping preserve the scheme's long-run viability.

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62 Some higher earners who are constrained by current limits might opt to rely solely on tax-deferred plans if they felt they had more to lose from METR differentials either over time or between themselves and their spouses.

63 The additional paydown of public debt would provide government with more flexibility to handle the increased public expenditure needs of a growing elderly population, and interest savings would partly offset future revenue declines.

64 The Debt Servicing and Reduction Account, which receives GST revenue, is intended for a similar purpose.

Expanding total contribution limits along with TPSPs ultimately would raise growth, so more tax revenues would be available in future years, even with unchanged tax rates and with fewer withdrawals from tax-deferred plans.

Also, expanding total contribution limits along with TPSPs ultimately would raise growth, so more tax revenues would be available in future years, even with unchanged tax rates and with fewer withdrawals from tax-deferred plans. Similar growth benefits could come from higher contribution limits for tax-deferred savings plans, but raising those limits to the extent that could be contemplated with the introduction of tax-prepaid schemes might be politically difficult.

TPSPs versus Other Tax Cuts

Many policy advocates argue for maximal reductions in statutory tax rates. Yet economic factors support increased access to tax-recognized savings, even at the cost of somewhat smaller cuts in statutory tax rates.

For individuals who can save on a tax-prepaid or tax-deferred basis (with the same METR while saving and consuming), the marginal rate on capital income is zero. Introducing TPSPs and higher savings contribution limits would thus reduce the effective rates on savings and capital income (see Box 3). This approach would promote economic efficiency more than across-the-board rate cuts with an unreformed income tax that included more capital income.

At lower incomes, no tradeoff may exist. If workers choose not to save within the existing options for tax-recognized savings, they have no capital income that could generate tax liabilities. If they began a savings plan when offered the TPSP option, they would accumulate savings and capital income tax free. In either case, they would pay personal tax on their labor earnings and no tax on capital income. Their larger immediate consumption under the current regime incurs sales tax, but so would their increased future purchases under a TPSP option.

Higher-income workers, who are currently constrained by RPP and RRSP contribution limits, would find TPSPs an attractive way to save more for their retirement. The TPSPs would reduce not their immediate taxes but their future taxes on capital income generated by their savings. Thus, Canadian residence would become more attractive than currently, helping to stem the flow of professional, technical, and managerial workers to the United States. Current US tax provisions for retirement savings are much more generous for higher-income earners than those of Canada, and offering TPSPs would help redress the competitive imbalance. Moreover, workers making use of higher contribution limits and access to TPSPs would reduce their lifetime METR on incremental labor earnings.

Another way of shifting the overall tax base toward consumption would be to rely more on the GST to finance larger across-the-board cuts to personal taxes on an unreformed base. The disadvantages of this approach, relative to the reformed personal tax base proposed here, would be several. Total indirect tax rates (GST plus provincial sales tax) on covered goods and services already range from 13 to 17 percent outside Alberta, and raising rates would present obvious political difficulties. Raising the GST rate would impose cash-flow burdens on households at the lowest incomes, even if offset by a higher GST tax credit.[66] Moreover, hikes in these rates would aggravate existing problems with compliance, evasion, and smuggling. Finally, a large hike in the

66 Kesselman (1997, ch. 8) examines analogous issues in the context of replacing the GST with a direct consumption tax.

Box 3: *Tradeoff between Tax Rate Cuts and Increased Savings Access*

The argument for preferring increased access to tax-recognized savings over cuts in the statutory rates is based on the higher efficiency costs of taxes on capital income than on labor income or consumption (see Table 1). With increased access to tax-recognized savings, more taxpayers could enjoy a zero METR on their capital income. If the relevant group of taxpayers for this policy choice — those with earnings generally above $75,000 — save by contributing to RPPs or RRSPs at the allowed 18 percent of earnings, their annual contributions are constrained by the $13,500 ceiling.

Consider the following tradeoff between steeper cuts in statutory tax rates and greater access to the existing tax-deferred schemes. (The numbers here are only illustrative, and the example does not argue against cuts in the top-bracket tax rates. It simply demonstrates that, for whatever total tax relief government chooses to give to top-bracket taxpayers, there is economic advantage in providing a major part of this cut via increased access to tax-recognized savings.)

		METR on Income from	
Total METR	RPP/RRSP Limits	Labor	Capital
(%)		(%)	(%)
45	no change	45	45
50	increased	41 or 50	0

Cutting the statutory top marginal tax rate (federal plus provincial) to 45 percent would decrease the METR on both labor and capital income to 45 percent for the high earners constrained by the contribution limit. Leaving the top rate at 50 percent but increasing the contribution limit so that taxpayers were no longer constrained would have different effects on the METRs of the two income sources. The METR for capital income would fall to zero, since at the margin all saving could be achieved via a tax-neutral tax-deferred plan. The METR for incremental labor income would fall to 41 percent — or 50 percent × (1.00 – 0.18) — if the worker ignores the tax that will have to be paid on withdrawal of funds from the tax-deferred plan. It would stay at 50 percent if the worker factors in this future tax liability (assuming the same tax rate will apply at that time).

A similar analysis applies to expanding access to tax-recognized savings via the provision of TPSPs with higher total contribution limits than at present. Again, the METR on capital income would be decreased from 50 percent to zero. The METR on labor income would more transparently remain at 50 percent (because contributions to TPSPs would generate no up-front tax deduction). Nevertheless, earning additional labor income would allow these workers to put more savings in TPSPs, with the associated benefit of no further tax liability on those funds or their investment returns. The portion of their labor income that they saved would enjoy a large tax cut relative to the current situation.

GST rate, even with income tax rate cuts, would not easily permit major improvement in savings distortions for high-income earners.

Conclusion

Canada will soon be facing economic pressures from a quickly aging population, low savings rates, and growing demand for public retirement benefits, all interacting with the past decade's lagging economic growth. As the baby boomers retire and the

population's proportion of workers declines, demands on public finances will mount. Recasting the personal tax base more toward consumption would help remedy these problems and better prepare the economy for the challenges ahead. This approach might increase individual and aggregate savings; regardless, it would improve the efficiency of capital allocation and spur economic growth. It would also improve the equity of the lifetime taxation of low and high savers for any given level of lifetime labor earnings.

The current tax provisions for savings have significant deficiencies for workers at all earnings levels.

Unfortunately, the current tax provisions for savings have significant deficiencies for workers at all earnings levels. Many low- and middle-income earners are discouraged from saving by the high effective tax rates they will face during retirement. Much of the saving they do is diverted to overinvestment in their homes. Some who do save via RPPs and RRSPs do not understand the meager net returns to their savings until they retire.

At earnings above $75,000, most workers are constrained from efficient saving by the $13,500 ceiling on tax-deductible contributions to registered plans. While this group includes relatively few taxpayers, the problem affects a large portion of actual and potential savers. Many of these individuals are induced to save less or in ways that reduce their taxes but distort the efficient allocation of capital through overinvestment in housing, life insurance, tax shelters, or off-shore havens. And some higher-income earners who are not constrained by the contribution ceiling may even face inefficient incentives to oversave.

Addressing the deficiencies of the current tax treatment of savings requires two key changes. One that has been widely promoted is an increase in the allowable annual contributions to tax-recognized savings plans. The other change, which only recently has received much attention, is to restructure the tax provisions so as to encourage savings for all workers, including those whose incomes are too low for the current dollar ceiling to affect them. Our proposal responds on both fronts.

Why use TPSPs to provide additional room for tax-recognized savings, rather than simply raise the limit on RPP and RRSP contributions? Five points favor the TPSP approach for higher-income earners:

- Adding TPSPs to the existing tax-deferred savings plans would move the personal tax system toward an economically appealing consumption tax base, allowing individuals to consume and save efficiently over their lifetimes and smooth their lifetime tax burdens through a form of averaging.
- TPSPs would avoid the sizable up-front revenue cost to government of expanding the contribution limits for RPPs and RRSPs. (This effect would principally be a difference in the timing of revenues, which should be banked through increased pay-down of public debt.)
- Because TPSPs would make high-income earners pay tax up front on their savings out of current earnings, the political environment would support larger hikes in the contribution limit.
- For the same reason, higher-income earners would not have an incentive to emigrate as they do when they have accumulated large RRSPs and withdrawals can be subject to tax withholding at relatively low non-resident rates.
- Unlike spousal RRSPs, TPSPs would prevent income splitting between spouses.

For low- and middle-income earners, the issue is the structure of the tax provision for saving. Being able to prepay tax when their rate is nil or low would enable them to avoid the higher METRs that tax and transfer systems would impose during their

retirement. Introducing TPSPs, alongside a commitment that balances held in such plans would not affect future entitlement to federal public benefits, would restore efficient savings incentives for earners at these levels. Moreover, younger workers with low but rising lifetime earnings could and probably would opt to save via TPSPs while they were still in lower tax brackets, even if they did not expect to rely on income-tested benefits in their retirement.

We propose a simple TPSP design. Contribution limits would be fully integrated with those for all existing tax-deferred savings plans (the exact method of integration could follow one of several forms, depending on the precise policy objectives). No penalties would arise for early withdrawals, but TPSP plans would have to be deregistered or withdrawals begun with no further contributions by age 69. At the outset, there would be no employer-based version of the scheme. The plan's practical operation would carry no significant costs for government or taxpayers.

Introducing TPSPs along with higher total contribution limits for tax-recognized savings would present a few issues for public policy. With taxes on savings paid up-front, governments would need fiscal discipline to pay down debt faster. To improve savings incentives for low- and middle-income earners, governments would have to credibly commit not to include TPSPs in income tests for public benefits. Furthermore, higher earners and policymakers would have to recognize TPSPs as a beneficial substitute for larger tax rate cuts in the top bracket, not simply additional relief.

TPSPs offer a compelling route for federal tax reduction and reform.

If these conditions can be met, TPSPs offer a compelling route for federal tax reduction and reform. The scheme's coexistence with existing plans would provide efficient savings incentives and more ability to average lifetime tax burdens, and the expanded tax recognition of savings would improve economic growth. Aggregate savings might increase, and the economy's total capital stock would be more efficiently allocated. With more retirees self-sufficient on their savings, society would be better prepared for coming demographic change. And the fiscal burden of supporting future retirees would be more equitably divided between those who have saved while working and those who have not.

Appendix: Foreign Precedents for TPSPs

Both the United Kingdom and the United States have interesting and popular tax-prepaid savings plans. Their motivation and design features offer useful background for consideration of Canadian TPSPs.

UK Precedents

In the 1980s, the United Kingdom introduced tax-prepaid vehicles ("personal equity plans") that were mostly limited to equity investments and appealed mainly to sophisticated savers. In 1999, it implemented "individual savings accounts" (ISAs) to encourage savings by more workers and especially those unsophisticated in financial matters. The UK government stated its rationale for providing ISAs in its 1998 budget:

> Nearly half of the adult population have less than £200 in liquid savings and a quarter have no savings at all....[A] new savings vehicle — the individual savings account — [is] designed to develop and extend the savings habit, and to ensure that the tax relief on savings is fairly distributed. (United Kingdom 1998, ch. 5.)

The annual contribution limit is not tied to income and is a generous £7,000 (equivalent to C$15,000), to entice participation by high- and low-income earners. Contributions do not affect allowable contributions to other tax-recognized savings plans, and any amount of the proceeds (principal and earnings) may be withdrawn at any time without tax impact or penalty. There are no age restrictions on contributions or withdrawals, clearly enhancing accessibility for taxpayers who might otherwise hesitate to commit themselves to saving. But restrictions on the types of investment vehicles held within ISAs and on the distribution of funds across those vehicles suggest at least a vestige of paternalism in the design of the plans.

ISAs exist in addition to very generous UK provision for tax-deferred savings. The principal plan is the personal pension scheme (alternatively, employees may belong to an employer-managed scheme). Access to a personal pension scheme is limited to 17.5 percent of earnings to an earnings maximum of £90,600 for 1999–2000, or nearly C$200,000; the amount is fully indexed for inflation. Above age 35, the maximum percentage rises, reaching 40 percent for those ages 61 to 74. Instead of contributors receiving tax deductions, Inland Revenue gives the scheme manager a credit for tax paid that is added to the taxpayer's savings. The result is that any current-year tax relief is automatically saved, rather than spent on consumption.

The design of ISAs has attractive features focused on stimulating savings — especially the absence of age limits or penalties. But if income replacement during retirement is the main goal, retired taxpayers' freedom to contribute makes little sense. Moreover, the intrusive character of restrictions on investment vehicles and allocations across them might not be attractive in Canada, where the public may be better informed on financial matters and less fearful that the financial sector is uncompetitive in its offerings.

US Precedents

The United States instituted tax-prepaid savings plans in 1998 in the form of Roth individual retirement accounts (IRAs); they are a companion to the "standard" IRAs

that have operated on a tax-deferred basis since the 1970s. Roth IRAs allow much smaller maximum annual contributions than the UK scheme, and they are not available to very high income earners. Restrictions include a five-year holding period, during which withdrawals of earnings trigger taxes and penalties, and a minimum age for tax-free withdrawals.

Another Roth IRA feature has made them very popular — the ability to shift funds to them from standard IRAs. The contribution limit is US$2,000 per year for standard and Roth IRAs combined. However, a dollar of contribution room is worth considerably more in a Roth IRA because the prepaid tax does not count against the limit there, while part of a standard IRA must later be given up in tax.

"Qualified" distributions from a Roth IRA are not included in the individual's taxable income. The qualifications are that the earliest contribution has been in the account for at least five years and that the taxpayer is older than 59½ or has died or become permanently disabled. (Other qualified purposes for withdrawals, if the five-year test is met, are postsecondary education expenses and up to US$10,000 toward a first-time home purchase.) Taxpayers who withdraw funds without meeting these qualifications bear a 10 percent early-withdrawal penalty and tax on the cumulative investment return.

The option to shift IRA funds into a Roth IRA adds a wrinkle to how the US tax-prepaid savings scheme should be characterized. It gives a wide range of taxpayers a kind of temporal tax rate arbitrage, and extending consumption-based treatment to more of Americans' income is likely beneficial for the economy. Yet it seems doubtful that this outcome is what legislators had in mind when approving the overall mechanism. Other key features, such as the age and other restrictions on withdrawals, suggest the intention of encouraging retirement savings. And other features indicate a desire to restrict the largest benefits of additional tax-recognized saving to lower- and middle-income taxpayers.

Given the popularity of Roth IRAs in their first year, Senator William Roth, their chief sponsor, proposed major expansions in 1999 (United States 1999). His recommendations include an increase in allowable contributions to standard and Roth IRAs and the creation of sub-plans that would allow existing deferred compensation schemes to operate on a tax-prepaid basis, as well as an increase in annual maximum contributions. Additionally, the limits that prevent high-income taxpayers from using standard or Roth IRAs would be fully eliminated. Legislation containing a number of these features cleared the House and Senate in 2000 but had yet to become law at the time of writing.

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